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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,381	10/22/2003	Kenji Kondo	10407-67US (A3038MT-US1)	8667
570 7590 12/19/2006 AKIN GUMP STRAUSS HAUER & FELD L.L.P. ONE COMMERCE SQUARE 2005 MARKET STREET, SUITE 2200 PHILADELPHIA, PA 19103			EXAMINER RIVERO, MINERVA	
			ART UNIT 2627	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/19/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/691,381	KONDO ET AL.	
	Examiner	Art Unit	
	Minerva Rivero	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>26 September 2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In the Remarks filed 9/26/06, Applicants amended claims 1, and 8-10, and submitted arguments for allowability of pending claims.

Response to Arguments

2. Applicant's arguments filed 9/26/06 have been fully considered but they are not persuasive.

Regarding claims 1 and 8-10, Applicants argue that Aoki does not disclose determining the frequency component by the lengths of the marks which are formed on a track. The examiner cannot concur with Applicants. Aoki discloses setting the lengths of the marks (A and B) specifically to conform to a particular frequency band, furthermore marks A are formed in the groove from which crosstalk is to be minimized (see Fig. 11). Therefore the claims stay rejected.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto *et al.* (US 6,028,826), hereinafter Yamamoto, in view of Aoki *et al.* (US 5,602,823), hereinafter Aoki.

5. Regarding claims 1 and 8-10, Yamamoto discloses an optical disc drive to be loaded with an optical disc that includes tracks on which a plurality of marks are formed, the optical disc drive comprising:

an optical system for focusing a light beam on the optical disc loaded (Col. 10, Lines 48-51);

a photodetector, which includes multiple areas to receive the light beam that has been reflected from the optical disc and which generates multiple read signals representing quantities of light received at the areas (*light detector*, Col. 5, Lines 17-22);

a phase difference detecting section for detecting a phase difference between the processed signals (Col. 5, Lines 28-33);

a signal generating section for generating a tracking error signal, representing a positional relationship between a focal point of the light beam on the optical disc and a target one of the tracks, based on the phase difference (*tracking error signal*, Col. 5, Lines 32-33); and

a control section for generating a control signal based on the tracking error signal (Col. 5, Lines 40-43);

wherein in accordance with the control signal, the optical disc drive controls the focal point of the light beam across the tracks on the optical disc (light converges on track accordingly, Col. 5, Lines 41-43).

However, Yamamoto does not explicitly disclose but Aoki does disclose a filter, which receives the read signals and which outputs multiple processed signals with one of frequency components of the read signals attenuated, the frequency component to be attenuated being determined by the lengths of the marks (Col. 17, Lines 44-67).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the teachings of Yamamoto and have a filter, which receives the read signals and which outputs multiple processed signals with one of frequency components of the read signals attenuated, the frequency component to be attenuated being determined by the lengths of the marks, as disclosed by Aoki, in order to remove crosstalk, as further disclosed by Aoki (Col. 17, Lines 55-56).

6. Regarding claim 2, Yamamoto discloses

a light source, which emits the light beam (Col. 10, Line 50);

a lens, which focuses the light beam on the optical disc (Col. 10, Lines 48-49);

and

an actuator, which adjusts a position of the lens, and wherein in response to the control signal, the optical disc drive drives the actuator to adjust the position of the lens

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such that the focal point of the light beam is located on the center of the target track (Col. 1, Lines 48-52 and 65-67).

7. Regarding claim 3, Yamamoto does not disclose but Aoki does disclose the filter removes the frequency component (Col. 17, Lines 64-67).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the teachings of Yamamoto and have the filter remove the frequency component, as disclosed by Aoki, in order to remove crosstalk, as further disclosed by Aoki (Col. 17, Lines 55-56).

8. Regarding claim 4, discloses the filter removes a frequency component of a particular frequency that is determined by the minimum length of the marks (*setting length condition $B > A$ and filtering crosstalk*, Col. 17, Lines 44-67).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the teachings of Yamamoto and have the filter removes a frequency component of a particular frequency that is determined by the minimum length of the marks, as disclosed by Aoki, in order to remove crosstalk, as further disclosed by Aoki (Col. 17, Lines 55-56).

9. Regarding claim 5, 'the filter removes frequency components of which the frequencies are equal to or higher than the particular frequency', the examiner takes

Official Notice that filtering frequencies that are equal to or higher than a particular frequency, (low-pass filter) is a common practice in the art.

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the combined teachings of Yamamoto and Aoki and have the filter remove frequency components of which the frequencies are equal to or higher than the particular frequency, since it is common practice in the art in order to remove crosstalk and other unwanted frequency components.

10. Regarding claim 6, Yamamoto does not disclose but Aoki does disclose the filter further removes a frequency component of a frequency that corresponds to a mark of a second shortest length (*land mark B being the second shortest mark and reducing crosstalk amount from the groove portion during tracking of the land portion*, Col. 17, Lines 57-59).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to supplement the teachings of Yamamoto and have the filter remove a frequency component of a frequency that corresponds to a mark of a second shortest length as disclosed by Aoki, in order to remove crosstalk, as further disclosed by Aoki (Col. 17, Lines 55-56).

11. Regarding claim 7, discloses the optical disc drive determines the frequency by a linear velocity of the track and the length of the mark at the focal point of the light beam,

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and wherein the filter attenuates the frequency component of the determined frequency (Col. 17, Lines 44-59).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to supplement the teachings of Yamamoto and have the optical disc drive determine the frequency by a linear velocity of the track and the length of the mark at the focal point of the light beam, and wherein the filter attenuates the frequency component of the determined frequency, as disclosed by Aoki, in order to detect and attenuate the unwanted frequency component.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

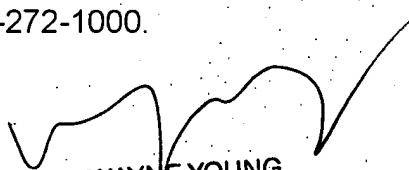
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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minerva Rivero whose telephone number is (571) 272-7626. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MR 12/15/06


WAYNE YOUNG
SUPERVISORY PATENT EXAMINER